



4701

Burns

Treatment Protocol

Last Reviewed: **October 4, 2022**Last Revised: **September 13, 2024**

BLS Patient Management

ALS Patient Management

- **Establish, maintain, and ensure**

- A. A patent and easily managed airway. Use manual maneuvers (head-tilt / chin-lift or jaw thrust), oropharyngeal suction and/or airway adjuncts (OPA / NPAs) as clinically indicated
- B. Adequate respirations and tidal volume. Use a mouth-to-mask device or bag valve mask (BVM), when clinically indicated. Rescue ventilations via a BVM require the use of a manometer. Waveform / digital capnography is required when paramedics are present
- C. Controlled bleeding. Use direct pressure and/or pressure dressing(s) and/or tourniquet(s) and/or hemostatic dressing(s), as clinically indicated

- **Oxygen**

As clinically indicated. Titrate to maintain, or increase, SpO₂ to a minimum of 94%. A range of 88-92% is acceptable for patients with a history of COPD

- Position the patient as clinically indicated for safety, comfort, and to meet physiologic requirements
- Preserve the patient's body heat by covering them with warm blankets
- Attach ECG leads to the patient when a paramedic is present

- **RULE OF PALMS**

Surface of patient's palm equals approximately 1% of body surface area (BSA)

- **ADULT RULE OF NINES**

- 9% (head)
- 9% (right arm)
- 9% (left arm)
- 36% (torso)
- 1% (genitalia / perineum)
- 18% (right leg)
- 18% (left leg)

- Establish, maintain, and ensure peripheral IV and/or IO access for emergency stabilization, and/or as clinically indicated, in adult and pediatric patients

Consider the need for additional sites as clinically indicated

- **For significant burns**

Adults: Normal Saline 250 mL IV/IO bolus. **MAY REPEAT AS CLINICALLY INDICATED TO A MAX ADMINISTRATION OF 2 L.**

Pediatrics: Normal Saline 20 mL/kg IV/IO bolus. Use a volume control administration set for accurate dosing. **MAY REPEAT AS CLINICALLY INDICATED.**

- **For pain associated with burns**

Adults: Fentanyl 50 mcg slow IVP/IO or IM/IN. Patient's systolic BP must be greater than or equal to 90 mmHg at the time of administration. **MAY REPEAT ONCE, IN 5-10 MINUTES, DEPENDENT ON PAIN SEVERITY, TO A MAX OF 100 MCG. ADDITIONAL ADMINISTRATIONS AFTER 100 MCG REQUIRE A BASE HOSPITAL ORDER (BHO).**

Pediatrics: Fentanyl 1 mcg/kg slow IVP/IO or IM/IN. **MAY REPEAT ONCE. ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).**

Adults: Ketamine 0.3 mg/kg IV, infuse in 50-100 mL Normal Saline, administer over 5 minutes. **MAY REPEAT ONCE. ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).**

****OR****

Ketamine 0.5 mg/kg IN. **MAY REPEAT ONCE. ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).**

THE MAX SINGLE DOSE FOR EITHER ROUTE IS 30 MG.

- **INFANT RULE OF NINES**

18% (head)
9% (right arm)
9% (left arm)
36% (torso)
14% (right leg)
14% (left leg)

- Remove and bag patient's clothing, jewelry, etc., paying special attention to preventing binding and constriction

- **For thermal burns: less than 20% BSA**

Cool with wet dressing(s). Follow with dry, clean, non-adherent dressing(s)

- **For thermal burns: greater than 20% BSA**

Apply dry, clean, non-adherent dressing(s)

- **For chemical burns**

Brush off dry chemicals and dilute excess liquid chemicals. Wash patient with mild soap and water. Rinse and flush with large amounts of water

Consult container label or onsite SDS for decontamination instructions.

Remove label or copy page from SDS, preserve in sealed plastic bag, and transport with patient

- **For electrical burns**

Consider possibility of spinal trauma / need for spinal stabilization. Treat related injuries as clinically indicated

- **For eye burns**

Flush contaminated eye(s) with saline for 15 minutes or more. Check for contact lenses. Patch eye(s) as clinically indicated

- **For tar burns**

Cool burns with water. Do not remove tar. Apply petrolatum gauze dressing(s)

ADMINISTRATION OF KETAMINE TO PEDIATRIC PATIENTS IS NOT PERMITTED.

Patient Disposition

- **PREHOSPITAL TRANSPORT TO A BURN CENTER REQUIRES A BASE HOSPITAL ORDER (BHO).** Patients with minor and/or moderate burns can be cared for at any prehospital receiving center.
- Burn patients with airway involvement shall be transported to the closest prehospital receiving center. Airway involvement has priority over burns

- Burn patients meeting critical trauma patient criteria shall be transported to a trauma center. Trauma has priority over burns
- **CONTACT A SINGLE BASE HOSPITAL FOR DESTINATION IN ALL:**
 - Second degree (2°) burns greater than 30% BSA
 - Third degree (3°) burns greater than 10% BSA
 - Second degree (2°) or third degree (3°) burns involving face, hands, feet, genitals / perineum, major joints, fractures, or circumferential burns
 - High voltage electrical burns
 - Burns in combination with significant pre-existing medical conditions